

NEW SYNONYMY IN AMERICAN BARK BEETLES
(SCOLYTIDAE: COLEOPTERA). PART III¹

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ABSTRACT.— New synonymy affecting North and Central American Scolytidae is proposed as follows: *Araptus* Eichhoff (= *Neodryocoetes* Eggers, *Thamnophthorus* Schedl, *Sphenoceros* Schedl), *Coccotrypes* Eichhoff (= *Poecilips* Schaufuss), *Gnathotrichus* Eichhoff (= *Ancyloderes* Blackman, *Prognathotrichus* Bright), *Gnathotrupes* Schedl (= *Gnathotrypanus* Wood), *Araptus hymenaeae* (Eggers), n. comb., (= *Neodryocoetes insularis* Eggers, *Neodryocoetes caribaeus* Blackman, *Neodryocoetes guianae* Blackman, *Neodryocoetes hoodi* Blackman), *Araptus laevigatus* (Eggers), n. comb. (= *Neopityophthorus insularis* Eggers, *Neodryocoetes guadeloupensis* Schedl), *Araptus macer* Bright, n. comb. (= *Neodryocoetes tuberculatus* Bright), *Araptus publitus* (Blandford), n. comb. (= *Neodryocoetes hubbardi* Blackman), *Araptus tabogae* (Blackman), n. comb. (= *Neodryocoetes vinealis* Bright), *Cnesinus elegantis* Wood (= *Cnesinus zapotecus* Bright), *Coccotrypes advena* Blandford (= *Thamnurgides persicae* Hopkins), *Corthylocurus barbatus* (Blandford) (= *Corthylocurus cinnamatus* Bright), *Corthylocurus mexicanus* (Schedl) (= *Corthylus anomalous* Bright), *Corthylus mexicanus* Schedl (= *Corthylus glabrinus* Bright), *Crypturgus pusillus* (Gyllenhal) (= *Crypturgus atomus* LeConte), *Dendrocranulus carbonarius* (Ferrari) (= *Xylocleptes floridensis* Hopkins, *Xylocleptes anonae* Hopkins), *Dendrocranulus cucurbitae* (LeConte) (= *Xylocleptes californicus* Hopkins, *Xylocleptes venturina* Hopkins, *Xylocleptes punctatus* Hopkins), *Dendrocranulus macilentus* (Blandford) (= *Dendrocranulus grossopunctatus* Schedl), *Hylastes salebrosus* Eichhoff (= *Hylastes scobinosus* Eichhoff), *Hypothenemus seriatus* (Eichhoff) (= *Stephanoderes pulverulentus* Eichhoff), *Ips spinifer* (Eichhoff) (= *Orthotomicus sabinianae* Hopping), *Leperisinus aculeatus* (Say) (= *Hylesinus imperialis* Eichhoff), *Micracis lignator* Blackman (= *Micracis truncatus* Wood), *Micracis swaini* Blackman (= *Micracis photophilus* Wood), *Micracis suturalis* LeConte (= *Micracis meridianus* Blackman), *Monarthrum querneus* Wood (= *Monarthrum bifidus* Bright), *Orthotomicus caelatus* Eichhoff (= *Xyleborus vicinus* LeConte, *Xyleborus punctipennis* LeConte), *Coccotrypes indicus* (Eggers) (= *Xyleborus conspiciens* Schedl, *Coccotrypes insularis* Eggers, *Poecilips eggersi* Schedl), *Phloeoborus asper* Erichson (= *Phloeoborus ovatus* Chapuis, *Phloeoborus rugatus* Blandford), *Phloeoborus rudis* Erichson (= *Phloeoborus elongatus* Chapuis, *Phloeoborus rugipennis* Eggers), *Phloeotribus armatus* Blandford (= *Phloeotribus mixtecus* Bright), *Phloeotribus demessus* Blandford (= *Phloeotribus tuberculatus* Eggers), *Phloeotribus pilula* (Erichson) (= *Phloeotribus obliquus* Chapuis, *Phloeotribus manni* Blackman), *Phloeotribus setulosus* Eichhoff (= *Phloeotribus asperatus* Blandford), *Pityoborus frontalis* Wood (= *Pityoborus severus* Bright), *Pityoborus secundus* Blackman (= *Pityoborus tertius* Blackman, *Pityoborus immitus* Bright, *Pityoborus intonsus* Wood, *Pityoborus ramosus* Bright), *Pycnarthrum hispidum* (Ferrari) (= *Nemobius lambottei* Chapuis, *Pycnarthrum gracile* Eichhoff, *Pycnarthrum quadraticolle* Eichhoff, *Pycnarthrum transversum* Blandford, *Pycnarthrum reimoseri* Schedl, *Pycnarthrum reticulatus* Schedl), *Pseudopityophthorus declivis* Wood (= *Pseudopityophthorus truncatus* Bright, *Pseudopityophthorus curtus* Bright), *Pseudopityophthorus hondurensis* Wood (= *Pseudopityophthorus montanus* Bright), *Pseudopityophthorus micans* Wood (= *Pseudopityophthorus squamosus* Bright), *Pseudopityophthorus opacicollis* Blackman (= *Pseudopityophthorus aesculinus* Bright), *Pseudopityophthorus pruinosus* (Eichhoff) (= *Pseudopityophthorus pulvereus* Blackman, *Pseudopityophthorus tropicalis* Wood, *Pseudopityophthorus convexus* Bright), *Pseudopityophthorus singularis* Wood (= *Pseudopityophthorus acuminatus* Bright), *Pseudopityophthorus tennis* Wood (= *Pseudopityophthorus hirsutus* Bright), *Stenocleptus sulcatus* (Bruck) (= *Stenocleptus ceanothi* Blackman,

¹The research on which this paper was based was sponsored by the National Science Foundation.

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Stenocleptus rhois Blackman), *Thysanoes texanus* Blackman (= *Thysanoes vacheliae* Blackman, *Thysanoes ratamae* Blackman), *Trypophloeus striatulus* (Mannerheim) (= *Trypophloeus nitidus* Swaine), *Xyleborus capucinus* Eichhoff (= *Xyleborus rufithorax* Eichhoff), *Xyleborus pubescens* Zimmermann (= *Xyleborus pini* Say of Eichhoff), *Xylosandrus curtulus* Eichhoff (= *Xyleborus biserialis* Schedl). *Carphotoreus*, n. gen., is described for *Chaetophloeus alni* Bright. *Coccotrypes sannio* (Schaufuss) is treated as a taxon distinct from *Coccotrypes advena* Blandford; and *Gnathotrichus consentaneus* Blandford is a valid species distinct from *Gnathotrichus sulcatus* LeConte. *Gnathotrichus bituberculatus* Blandford and all described South American species of *Gnathotrichus* are transferred to *Gnathotrupes*.

In the process of writing a taxonomic monograph of the Scolytidae of North and Central America, the unpublished synonymy summarized in the above abstract and treated on the following pages was encountered. In order to stabilize nomenclature and fix many established names, several lectotypes are designated and the resulting new synonymies are reported. Wherever possible the traditional usage has been preserved through lectotype designation. In several instances, however, established names are junior synonyms and cannot be conserved. In my opinion none of the junior synonyms affected by this action are sufficiently important to warrant special action to conserve them. The basis on which the synonymy is established is cited for each name treated.

Araptus Eichhoff

- Araptus* Eichhoff, 1878, Mem. Soc. Roy. Sci. Liège (2)8:305 (Type-species: *Araptus rufopalliatus* Eichhoff, monobasic)
- Neodryocoetes* Eggers, 1933, Mém. Trav. Lab. d'Ent. Mus. Nat. d'Hist. Nat., Paris 1(1):9 (Type-species: *Neodryocoetes hymenaeae* Eggers, monobasic). New synonymy
- Thamnophthorus* Schedl, 1938, Archiv Naturgesch. 7:174 (Type-species: *Thamnophthorus volastos* Schedl, subsequent designation by Blackman, 1942, Proc. U.S. Nat. Mus. 92:178). New synonymy
- Sphenoceros* Schedl, 1939, Mitt. Münchner Ent. Ges. 29:565 (Type-species: *Sphenoceros limax* Schedl, monobasic). New synonymy

The unique female holotype of *Araptus rufopalliatus* Eichhoff in the Institut Royal des Sciences Naturelles de Belgique, Brussels, lacks antennae and legs. The frons of this specimen has unusual sculpture and the epistoma is deeply emarginate; consequently, the phylogenetic position of this genus remained a mystery until a series of specimens identical to the type was collected at La Carbonera experimental forest, 50 km NW Merida, Merida, Venezuela, 16-IX-1969, at 2500 m, No. 21b, from *Nectandra* sp., by myself. The antennae, legs, other anatomical features, and the habits clearly indicate that this species is congeneric with *Neodryocoetes hymenaeae* Eggers. *Neodryocoetes*, therefore, must be placed in synonymy as indicated above.

In a review of the Central American species of *Araptus* it was noted that the antennal and other features used to characterize *Thamnophthorus* Schedl and *Sphenoceros* Schedl are not consistent and intergrade completely with those of various other species groups of *Araptus*. The species formerly assigned to *Sphenoceros* are phloe-

ophagous, not xylomycetophagous as assumed by Schedl. The names *Thamnophthorus* Schedl and *Sphenoceros* Schedl, consequently, are placed in synonymy under *Araptus*.

Carphotoreus, n. gen.

This genus superficially resembles certain *Chaetophloeus* species, but it is distinguished by the 6-segmented antennal funicle, by the more widely distributed crenulations on the basal margins of the elytra, by the absence of submarginal crenulations on the elytral bases, by the visible scutellum, by the different arrangement and type of pronotal asperities, and by other characters.

Description.— Length 1.5-1.6 mm, 2.14 times as long as wide.

Frons sexually dimorphic, moderately concave in male, flattened or convex in female; eye elongate-oval, entire; scape moderately long, funicle 6-segmented, club flattened, almost symmetrical, three nonseptate sutures indicated. Pronotum wider than long, anterolateral areas with a few asperities. Scutellum small, visible. Elytra suturally emarginate at base, a row of marginal crenulations at base, submarginal crenulations entirely absent; striate; declivity simple. Anterior coxae moderately separated. Third tarsal segments slender.

Type-species.— *Chaetophloeus alni* Bright.

This genus belongs to the Hylesinini and is tentatively placed near *Alniphagus* Swaine, although the relationship is not close.

Coccotrypes Eichhoff

Coccotrypes Eichhoff, 1878, Mém. Soc. Roy. Sci. Liège (2)8:308 (Type species: *Bostrichus dactyliperda* Fabricius, subsequent designation by Hopkins, 1914, Proc. U.S. Nat. Mus. 48:118)

Poecilips Schaufuss, 1897, Berliner Ent. Zeitschr. 42:110 (Type-species: *Poecilips sannio* Schaufuss, monobasic). New synonymy

This large diverse genus has been divided into *Coccotrypes* Eichhoff and *Poecilips* Schaufuss on the basis of pronotal structure and armature, and on habits. In a review of species assigned to these generic names, however, there seems to be considerable confusion. In *Coccotrypes* the pronotum should be strongly convex, with the anterior slope asperate, and they are spermophagous. In *Poecilips* the pronotum should be more weakly convex, with the anterior slope unarmed, and most species are supposed to be phloeophagous. Actually, there is a complete transition in characters within the group from a strongly to a weakly convex pronotum, and from a coarsely asperate to smooth anterior slope of the pronotum; in addition, many species may breed successfully in either fruit (seeds) or phloem. *Coccotrypes indicus* (Eggers) is an example where each of at least two different authors have simultaneously recognized one synonym as a valid species of *Coccotrypes* and another synonym as a valid species of *Poecilips*, depending on the geographic area of origin of the specimens examined. Under the circumstances it appears im-

possible to recognize more than one genus. A majority of species included in the group are intermediate in characters expressed, although the more familiar, economically important species represent the extremes.

Gnathotrichus Eichhoff

Gnathotrichus Eichhoff, 1869, Berliner Ent. Zeitschr. 12:75 (Type-species: *Gnathotrichus corthyloides* Eichhoff = *Tomicus materiarius* Fitch, monobasic)

Ancyloderes Blackman, 1938, Proc. Ent. Soc. Washington 40:20 (Type-species: *Cryphalus pilosus* LeConte, original designation). New synonymy

Prognathotrichus Bright, 1972, Canadian Ent. 104:1678 (Type-species: *Prognathotrichus primus* Bright, original designation). New synonymy

The type-species of *Ancyloderes* Blackman, *pilosus* (LeConte), is known only from collections at light. Its relationship to other species, for this reason, has been doubtful. Recently, several allied species have been described from *Quercus* in Mexico, indicating a clear relationship to *Gnathotrichus*. These species include *obscurus* Wood, *dentatus* Wood, *nimifrons* Wood, and *primus* (Bright). These species completely bridge the gap between *Ancyloderes* and *Gnathotrichus*. Since *primus* falls into the same species group with *pilosus*, *Paragnathotrichus* Bright and *Ancyloderes* must be placed in synonymy under *Gnathotrichus*.

Gnathotrupes Schedl

Gnathotrupes Schedl, 1951, Dusenja 2:125 (Type-species: *Gnathotrupes bolivianus* Schedl, monobasic)

Gnathotrypanus Wood, 1968, Great Basin Nat. 28:9 (Type-species: *Gnathotrypanus terebratus* Wood, original designation). New synonymy

In a review of this and related genera in North and Central America, including most of the species described from South America in *Gnathotrichus*, it was apparent that *Gnathotrichus* formed a compact group quite distinct from another somewhat diverse but definable genus from Central and South America. The name *Gnathotrupes* Schedl apparently is the oldest available name for this genus. To *Gnathotrupes* I assign all South American species described in *Gnathotrichus*, *Gnathotrichus bituberculatus* Blandford, from Guatemala, and *Gnathotrypanus terebratus* Wood and *electus* Wood, from Costa Rica. Through this action the genus *Gnathotrypanus* becomes a synonym of *Gnathotrupes*. The characters on which this division was based are discussed elsewhere.

Araptus hymenaeae (Eggers), n. comb.

Neodryocoetes hymenaeae Eggers, 1933, Mém. Trav. Lab. d'Ent. Mus. Nat. d'Hist. Nat., Paris 1(1):9 (Holotype, male; Gourdonville, Guayana Francaise; Paris Museum)

Neodryocoetes insularis Eggers, 1940, Arb. Morph. Tax. Ent. Berlin-Dahlem 7:128 (Holotype, female; Guadeloupe; Fleuteaux Coll.). New synonymy

Neodryocoetes caribaeus Blackman, 1942, Proc. U. S. Nat. Mus. 92:185 (Holotype, female; Trinidad; U.S. Nat. Mus.). New synonymy

Neodryocoetes guianae Blackman, 1942, Proc. U.S. Nat. Mus. 92:186 (Holotype, female; British Guiana; U.S. Nat. Mus.). New synonymy

Neodryocoetes hoodi Blackman, 1942, Proc. U.S. Nat. Mus. 92:187 (Holotype, female; Taboga Island, Panama; U.S. Nat. Mus.). New synonymy

Male cotypes of *hymenaeae* (Eggers) and *insularis* (Eggers) and the female holotypes of *caribaeus* (Blackman), *guianae* (Blackman), and *hoodi* (Blackman) were examined and compared directly to one another and to my material. Because of the limited material available to previous authors the extreme variability of the male frons of this species was not detected and several synonyms resulted. Each of several long series from Venezuela, Colombia, and Jamaica contain examples of the described variations clearly indicating that they all belong to one species.

Araptus laevigatus (Eggers), n. comb.

Pityophthorus laevigatus Eggers, 1933, Mém. Trav. Lab. d'Ent. Mus. Nat. d'Hist. Nat., Paris 1(1):6 (Holotype, female; St. Laurent du Maroni, Guyana Française; Paris Mus.).

Neopityophthorus insularis Eggers, 1940, Arb. Morph. Tax. Ent. Berlin-Dahlem 7:130 (Holotype, female; Trois Rivières, Guadeloupe; deposited in but not now in Eggers Coll.). New synonymy

Neodryocoetes guadeloupensis Schedl, 1951, Dusenja 2:73 (Replacement name). New synonymy

Cotypes of *laevigatus* Eggers and *insularis* Eggers were examined and compared to my material from Central and northern South America. All represent one species. It is common in fallen fruit on the forest floor. This species is very similar to but distinct from *costaricensis* (Schedl, 1938).

Araptus macer (Bright), n. comb.

Neodryocoetes macer Bright, 1972, Canadian Ent. 104:1666 (Holotype, female; 8 km or 5 miles S San Andres Tuxtla, Veracruz, Mexico; Canadian Nat. Coll.)

Neodryocoetes tuberculatus Bright, 1972, Canadian Ent. 104:1665 (Holotype, female, Lake Catemaco, Veracruz, Mexico; Canadian Nat. Coll.). New synonymy

Topotypic paratypes of *macer* (Bright) and of *tuberculatus* (Bright) were compared to one another and to my material from Central America. The limited material before Bright evidently did not include the variability found throughout the range of this species. His material fits very well within those limits. The name *macer* is selected for the valid name of this species under the first revisor principle.

Araptus politus (Blandford), n. comb.

Pityophthorus politus Blandford, 1904, Biol. Centr. Amer., Coleopt. 4(6):244 (Syntypes, male; Mexico; British Mus. Nat. Hist.)

Neodryocoetes hubbardi Blackman, 1942, Proc. U.S. Nat. Mus. 92:182 (Holotype, female; Kingston, Jamaica; U.S. Nat. Mus.). New synonymy

The two syntypes of *politus* (Blandford) and the female holotype of *hubbardi* (Blackman) were compared to my material. All repre-

sent the same common, rather widely distributed species. It occurs from Veracruz to Costa Rica, in Haiti, and in Jamaica.

Araptus tabogae (Blackman)

Neodryocoetes tabogae Blackman, 1942, Proc. U.S. Nat. Mus. 92:184 (Holotype, female; Taboga Island, Panama; U.S. Nat. Mus.).

Neodryocoetes vinealis Bright, 1972, Canadian Ent. 104:1667 (Holotype, female; Ejipantla, 8 km or 5 miles S San Andres Tuxtla, Veracruz, Mexico; Canadian Nat. Coll.). New synonymy

The holotypes of *tabogae* Blackman and *vinealis* Bright and 10 other specimens from Costa Rica were examined. While the Veracruz record is a significant extension of the range of this species, the specimen is entirely typical of the species. For this reason *vinealis* is placed in synonymy as indicated above.

Cnesinus elegantis Wood

Cnesinus elegantis Wood, 1967, Great Basin Nat. 27:79 (Holotype, female; Volcan Zunil, Quezaltenango, Guatemala; Wood Coll.)

Cnesinus zapotecus Bright, 1972, Canadian Ent. 104:1493 (Holotype, female; 5 km or 3 miles N Suchixtepec, Oaxaca, Mexico; Canadian Nat. Coll.). New synonymy

A topotypic female paratype of *zapotecus* Bright has the epistomal tubercles slightly smaller and more closely spaced than is seen in the type series of *elegantis* Wood, but except for this feature it and a male paratype are identical to *elegantis*. However, Bright's Figure 2 of this species is entirely normal for this species and removes all doubt concerning the synonymy.

Coccotrypes advena Blandford

Coccotrypes advena Blandford, 1894, Trans. Ent. Soc. London 1894:100 (Holotype, female; Nagasaki, Japan; British Mus. Nat. Hist.)

Thamnurgides persicae Hopkins, 1915, U.S. Dept. Agric. Rept. 99:45 (Holotype, female; Honolulu, Hawaii; U.S. Nat. Mus.). New synonymy

This species has been introduced from the Indo-Malayan area into Japan, most Pacific Islands, northern South America, and several of the Antilles islands, including Cuba. Although numerous synonyms have been detected, the synonymy of *persicae* (Hopkins) with *advena* Blandford, the oldest available name for the species, has not been published. The holotypes of both species were examined and compared directly to my material. Schedl (1961, Rev. Ent. Mocambique 4[2]:728) treated *persicae* as a synonym of *sannio* (Schaufuss, 1897), however, the interstitial bristles of a syntype and of many other African specimens are shorter and more strongly flattened. In all probability part or all of the African population constitutes at least a different geographical race. Additional material must be studied to resolve this problem. Regardless of the outcome, the name *advena* has priority and will stand as the valid name of the species.

Corthylocurus barbatus (Blandford)

Brachyspartus barbatus Blandford, 1904, Biol. Centr. Amer., Coleopt. 4(6):265 (Holotype, female; Volcan de Chiriqui, Chiriqui, Panama; British Mus. Nat. Hist.).

Corthylocurus cincinnatus Bright, 1972, Canadian Ent. 104:1379 (Holotype, female; 21 km or 13 miles N Ocozocoautla, Chiapas, Mexico; Canadian Nat. Coll.). New synonymy

The female holotypes of *barbatus* (Blandford) and *cincinnatus* Bright, and 86 other specimens from Puebla to Costa Rica, were examined. The holotype of *cincinnatus* has the median frontal elevation slightly higher and the epistomal tufts of hair slightly larger than is seen in the average specimen, but all characters fall well within the range of variation of this species. For this reason *cincinnatus* is placed in synonymy as indicated above.

Corthylocurus mexicanus (Schedl)

Brachyspartus mexicanus Schedl, 1950, Dusenya 1:163 (Holotype, female; Comitán, Chiapas, Mexico; Schedl Coll.).

Corthylus anomalus Bright, 1972, Canadian Ent. 104:1378 (Holotype, female; 5.6 km or 3.5 miles S Suchixtepec, Oaxaca, Mexico; Canadian Nat. Coll.). New synonymy

The holotype of *mexicanus* (Schedl) is a female, not a male as stated in the original description. This holotype and two topotypic paratypes of *anomalus* were compared directly to my material; all represent the same species.

Corthylus mexicanus Schedl

Corthylus mexicanus Schedl, 1950, Dusenya 1:159 (Holotype, male; Comitán, Chiapas, Mexico; Schedl Coll.).

Corthylus glabrinus Bright, 1972, Canadian Ent. 104:1372 (Holotype, female; 14 km or 9 miles SW Teopisca, Chiapas, Mexico; Canadian Nat. Coll.). New synonymy

Two paratypes from 3.5 miles S Suchixtepec, Oaxaca, Mexico, and the holotype of *mexicanus* Schedl were compared directly to my material. One species is represented by these specimens. It is a rather common species from Puebla and Veracruz to Chiapas.

Crypturgus pusillus (Gyllenhal)

Bostrichus pusillus Gyllenhal, 1813, Insecta Suecica descripta, Coleopt. 1(3):371 (Syntypes?; Sweden; Univ. Uppsala?).

Crypturgus atomus LeConte, 1868, Trans. Amer. Ent. Soc. 2:151 (Holotype, sex?; New York; Mus. Comp. Zool.). New synonymy

In a review of the genus *Crypturgus* for North America most of the Palearctic species were examined in order to determine phylogenetic relationships. In doing this it was noted that *atomus* LeConte could not be distinguished from the Eurasian *pusillus*. The odd pattern of distribution of this species also suggests that it was introduced into North America at an early date. This synonymy was independently noted by Bright and reported to me through correspondence at

about the same time I detected it. The holotype of *atomus* was compared directly to my North American specimens and these were compared to 26 European specimens of *pusillus*.

Dendrocranulus carbonarius (Ferrari)

Xylocleptes carbonarius Ferrari, 1867, Die Forst- und Baumsuchtschädlichen Borkenkäfer, p. 41 (Syntypes; Cuba; not located)

Xylocleptes floridensis Hopkins, 1915, U.S. Dept. Agric. Rept. 99:43 (Holotype, female; Biscayne Bay, Florida; U.S. Nat. Mus.). New synonymy

Xylocleptes anonae Hopkins, 1915, U.S. Dept. Agric. Rept. 99:43 (Holotype, female; Florida; U.S. Nat. Mus.). New synonymy

The holotypes of *floridensis* (Hopkins) and *anonae* (Hopkins) were compared directly to one another and to my specimens from Cuba. All represent the same species. These very old Cuban specimens were labeled *carbonarius* by an unknown authority. They fit Ferrari's description, but confirmation of their identity is needed.

Dendrocranulus cucurbitae (LeConte)

Xylocleptes cucurbitae LeConte, 1879, Bull. U.S. Geol. Survey 5:519 (Holotype, female; Utah; Mus. Comp. Zool.).

Xylocleptes californicus Hopkins, 1915, U.S. Dept. Agric. Rept. 99:44 (Holotype, female; Pomona, California; U.S. Nat. Mus.). New synonymy

Xylocleptes venturina Hopkins, 1915, U.S. Dept. Agric. Rept. 99:44 (Holotype, female; Ventura Co., California; U.S. Nat. Mus.). New synonymy

Xylocleptes punctatus Hopkins, 1915, U.S. Dept. Agric. Rept. 99:44 (Holotype, female; Mesilla, New Mexico; U.S. Nat. Mus.). New synonymy

The holotypes of *cucurbitae* (LeConte), *californicus* (Hopkins), *venturina* (Hopkins), and *punctatus* (Hopkins) were examined and compared to my material from Utah, California, New Mexico, and Chihuahua. All clearly represent the same species. It is common in dying stems of *Cucurbita foetidissima* and probably will be found throughout the distribution of that plant.

Dendrocranulus macilentus (Blandford)

Dryocoetes macilentus Blandford, 1898, Biol. Centr. Amer., Coleopt. 4(6):190 (Lectotype, female; Jalapa, Veracruz, Mexico; British Mus. Nat. Hist., present designation)

Dendrocranulus grossopunctatus Schedl, 1937, Arch. Instit. Biol. Veg. Rio de Janeiro 3:155 (Holotype, female; San Isidro de Coronado, San José, Costa Rica; Schedl Coll.). New synonymy

Of the two syntypes in Blandford's series the first, a female, is here designated as the lectotype of *macilentus* (Blandford). This lectotype and the female holotype of *grossopunctatus* Schedl were compared directly to my female from Tapanti, Cartago, Costa Rica. All three represent the same unusually slender species.

Gnathotrichus consentaneus (Blandford)

Gnathotrichus consentaneus Blandford, 1904, Biol. Centr. Amer., Coleopt. 4(6):247 (Lectotype, male, Totonicapan, Guatemala; British Mus. Nat. Hist., present designation).

Blandford included at least 18 specimens from several localities under the name *consentaneus* Blandford when it was described but stated that it was named from the Totonicapán specimens. In his series pins 1, 7, and 8 bear Totonicapán specimens of this species; the male on the first pin has been regarded as the type for many years and is here designated as the lectotype of *consentaneus*. Pins 3 and 5 and apparently another specimen of this series now in the Schedl collection bear specimens from Totonicapán of *sulcatus* (LeConte). The remainder of the series will be discussed elsewhere. The above action reestablishes the name *consentaneus* in the literature as a valid species.

Hylastes salebrosus (Eichhoff)

Hylastes salebrosus Eichhoff, 1868, Berliner Ent. Zeitschr. 12:146 (Lectotype, female; Carolina; U.S. Nat. Mus., present designation).

Hylastes scobinosus Eichhoff, 1868, Berliner Ent. Zeitschr. 12:146 (Lectotype, male?; Carolina; lost with Hamburg Mus.). New synonymy

Hylastes salebrosus Eichhoff and *scobinosus* Eichhoff were named from syntypic series which were destroyed with the Hamburg Museum except for two cotypes of *salebrosus* now in the U.S. National Museum of Natural History. The first of the two cotypes of *salebrosus* is a female of this species, the second is of *porculus* Erichson. I here designate the first cotype as the lectotype of *salebrosus* Eichhoff. A "cotype" of *scobinosus* in the U.S. National Museum was sent by Eichhoff to Schwarz; however, that specimen is from "Tennese" and cannot be a cotype. Because it is the only known specimen examined by Eichhoff it is used as the basis of this species. It is a specimen of *salebrosus*.

Hypothenemus seriatus (Eichhoff)

Stephanoderes seriatus Eichhoff, 1871, Berliner Ent. Zeitschr. 15:133 (Lectotype, female; New Orleans, Louisiana; Brussels Mus., present designation).

Stephanoderes pulverulentus Eichhoff, 1871, Berliner Ent. Zeitschr. 15:133 (Syntypes?; Mexico; presumably lost with Hamburg Mus.). New synonymy

The names *pulverulentus* (Eichhoff) and *seriatus* (Eichhoff) were validated on the same page. Since publishing synonymy involving *pulverulentus* (Wood, 1972, Great Basin Nat. 32:50) I have examined three female syntypes of *seriatus*. These syntypes are identical to the material reported in that paper as *pulverulentus*. Because the identity of *pulverulentus* was based on Eggers's homotypes, the original series having been destroyed, I select *seriatus* Eichhoff as the valid name for this species and designate the first syntype in the Chapuis series as its lectotype.

Ips spinifer (Eichhoff)

Tomicus spinifer Eichhoff, 1878, Mém. Soc. Roy. Sci. Liège (2)8:499 (Holotype, sex?; California; lost with Hamburg Mus.).

Orthotomicus sabinianae Hopping, 1963, Canadian Ent. 95:64 (Holotype, male; Middletown, Lake Co., California; California Acad. Sci.). New synonymy

The name *spinifer* (Eichhoff) was placed in synonymy by Swaine (1918, Dom. Canada Dept. Agric. Ent. Br. Tech. Bull. 14(2):114) under the name *latidens* (LeConte). As a result, Hopping presumed Swaine's action was correct, overlooked the description, and, consequently, named *sabinianae* in his review of the genus. Eichhoff described the pair of large frontal tubercles and the large, cylindrical, declivital spine 3 with sufficient clarity that there is no question whatever as to the identity of his species even though the type is lost.

Leperisinus aculeatus (Say)

Hylesinus aculeatus Say, 1824, Jour. Acad. Nat. Sci. Philadelphia 3:322 (Syntypes?; Missouri; evidently lost)

Hylesinus imperialis Eichhoff, 1868, Berliner Ent. Zeitschr. 12:149 (Syntypes; Wisconsin and Georgia; lost with Hamburg Mus.). New synonymy

A review of all North American *Leperisinus* indicates that the only species of this genus that could possibly occur in Wisconsin or Georgia, and fall within the size limitations of $1\frac{1}{4}$ - $1\frac{1}{2}$ lin. (2.65-3.18 mm) set by Eichhoff for his *Hylesinus imperialis*, is *aculeatus* (Say). Since *aculeatus* is a common and variable species, with respect to the color pattern formed by the abundant scales, because all syntypes of *imperialis* evidently were lost with the Hamburg Museum, and in the absence of all information that might suggest any other alternative, I place *imperialis* in synonymy under *aculeatus*.

Micracis lignator Blackman

Micracis lignator Blackman, 1928, New York St. Coll. For., Syracuse, Tech. Pub. 25:195 (Holotype, female; Tucson, Arizona; U.S. Nat. Mus.)

Micracis truncatus Wood, 1956, Canadian Ent. 88:152 (Holotype, female; 17 km NE Jacala, Hidalgo, Mexico; Snow Ent. Mus., Univ. Kansas). New synonymy

Since 1956, several series have been collected in Arizona and Mexico that largely fill the gap in characters between *lignator* Blackman and *truncatus* Wood. Although minute differences are still apparent that might justify the recognition of subspecies, I here place *truncatus* in synonymy under *lignator*.

Micracis swainei Blackman

Micracis swainei Blackman, 1920, Mississippi Agric. Expt. Sta. Tech. Bull. 9:32 (Lectotype, female; Iuka, Mississippi; U.S. Nat. Mus.)

Micracis photophilus Wood, 1956, Canadian Ent. 88:149 (Holotype, female; El Salto, San Luis Potosi, Mexico; Snow Ent. Mus., Univ. Kansas). New synonymy

After examining more than 463 specimens taken from New York to Honduras, including the type series of *swainei* Blackman and *photophilus* Wood, I must recognize only one species among this material. Specimens from the eastern United States are distinguishable from those from most of Mexico; however, the characters change over a gradual, clinal gradient making the recognition of geographical races difficult or impossible. It occurs most commonly in *Salix* spp., although other hosts are acceptable.

Micracis suturalis LeConte

Micracis suturalis LeConte, 1868, Trans. Amer. Ent. Soc. 2:165 (Lectotype, female; Illinois; Mus. Comp. Zool., present designation)

Micracis meridianus Blackman, 1920, Mississippi Agric. Expt. Sta. Tech. Bull. 9:29 (Lectotype, female; Agricultural College, Mississippi; U.S. Nat. Mus., present designation). New synonymy

The female syntype from Illinois, presently bearing type label No. 1014 in the LeConte series, is here designated as the lectotype of *suturalis* LeConte. The female in the syntypic series of *meridianus* Blackman that was labeled "Type" by Blackman, but never so designated, is here designated as the lectotype of *meridianus* Blackman. These lectotypes and all other syntypic specimens in the Museum of Comparative Zoology and in the U.S. National Museum, were examined and compared to my material. I am unable to see differences in this material and place *meridianus* in synonymy under LeConte's name.

Monarthrum querneus Wood

Monarthrum querneus Wood, 1967, Great Basin Nat. 27:50 (Holotype, male; 5 km or 3 miles E Morelia, Michoacan, Mexico; Wood Coll.).

Monarthrum bifidus Bright, 1972, Canadian Ent. 104:1382 (Holotype, male; 13 km or 8 miles E San Cristobal de las Casas, Chiapas, Mexico; Canadian Nat. Coll.). New synonymy

Two topotypic paratypes of *bifidus* Bright were compared directly to the type series of *querneus* Wood. Only one species is represented by these specimens. This species occurs in *Quercus* logs from Michoacan to Honduras.

Orthotomicus caelatus (Eichhoff)

Tomicus caelatus Eichhoff, 1868, Berliner Ent. Zeitschr. 11:402 (Syntypes; Pennsylvania, Carolina; lost with Hamburg Mus. except two supposed syntypes in the U.S. Nat. Mus.).

Xyleborus vicinus LeConte, 1874, Trans. Amer. Ent. Soc. 5:72 (Holotype, female; British Columbia; Mus. Comp. Zool.). New synonymy

Xyleborus punctipennis LeConte, 1878, Proc. Amer. Philos. Soc. 17:624 (Holotype, female; Marquette, Michigan; Mus. Comp. Zool.). New synonymy

The names *vicinus* (LeConte) and *punctipennis* (LeConte) have been retained in the literature as distinct species largely because their types were not seen by specialists. The holotypes of both *vicinus* and *punctipennis* were examined and were found to represent normal specimens of *caelatus* (LeConte). Although the type series of *caelatus* was mostly destroyed with the Hamburg Museum, Eichhoff sent two presumed syntypes to the U.S. National Museum that serve to fix the identity of his species.

Coccotrypes indicus (Eggers), n. comb.

Thamnurgides indicus Eggers, 1936, Ann. Mag. Nat. Hist. (10) 17:631 (Holotype, female; Sakalaspur, Mysore, India; British Mus. Nat. Hist.)

Xyleborus conspiciens Schedl, 1936, Archiv. Inst. Biol. Veg. Rio de Janeiro 3:110

(Holotype, female; locality not given, presumably Brazil; Schedl Coll.).
New synonymy

Coccotrypes insularis Eggers, 1940 (nec Eggers 1940:127), Arb. Morph. Tax. Ent. Berlin-Dahlem 7:129 (Lectotype, female; Trois-Rivières, Guadeloupe; U.S. Nat. Mus., designated by Anderson and Anderson, 1971, Smithsonian Contrib. Zool. 94:15). New synonymy

Poecilips eggersi Schedl, 1952, Dusenica 3:347 (Replacement name). New synonymy

The holotypes of *indicus* (Eggers) and *conspiciens* (Schedl), and the lectotype of *insularis* Eggers were all examined and compared to my material. Only one species is represented. This species has been introduced from the Indo-Malayan area into northern South America, Central America, the Antilles islands, and one series was intercepted in Florida, although it probably is not yet established there.

Phloeoborus asper Erichson

Phloeoborus asper Erichson, 1836, Archiv Naturgesch. 2(1):55 (Holotype, male; Brazil; Zool. Mus. Berlin)

Phloeoborus ovatus Chapuis, 1869, Synopsis des Scolytides, p. 15 (Lectotype, male; Cayenne; Brussels Mus., present designation). New synonymy

Phloeoborus rugatus Blandford, 1897, Biol. Centr. Amer. Coleopt. 4(6):153 (Lectotype, female; Chontales, Nicaragua; British Mus. Nat. Hist., present designation). New synonymy

The male holotype of *asper* Erichson, the three male syntypes of *ovatus* Chapuis, and the two female syntypes of *rugatus* Blandford were all compared to my long series of this species from Venezuela. It is obvious that all three names apply to the same, easily recognized species. The first syntype of *ovatus* and the first syntype of *rugatus* are here designated as lectotype of their respective species as indicated above.

Phloeoborus rudis Erichson

Phloeoborus rudis Erichson, 1836, Archiv Naturgesch. 2(1):55 (Lectotype, female; Brazil; Zool. Mus. Berlin, present designation)

Phloeoborus elongatus Chapuis, 1869, Synopsis des Scolytides, p. 13 (Holotype, male; Brazil; Brussels Mus.). New synonymy

Phloeoborus rugipennis Eggers, 1942, Arb. Morph. Taxon. Ent. Berlin-Dahlem 9:271 (Holotype, female; San Salvador; U.S. Nat. Mus.). New synonymy

Of the specimens of *rudis* Erichson now in the Zoologische Museum in Berlin, it appears that only the first two, both females, were in the original series. Since the first of these two syntypes has been regarded as the type, it is here designated as the lectotype of *rudis* as indicated above. This lectotype was compared directly to the male holotype of *elongatus* and to my specimens from Panama and Peru; my specimens were later compared to the female holotype of *rugipennis*. All apparently represent the same slightly variable species.

Phloeotribus armatus Blandford

Phloeotribus armatus Blandford, 1897, Biol. Centr. Amer., Coleopt. 4(6):166 (Holotype, male; Volcan de Chiriqui, Panama; British Mus. Nat. Hist.)

Phloeotribus mixtecus Bright, 1972, Canadian Ent. 104:1494 (Holotype, female; 26 miles S Juchatengo, Oaxaca, Mexico; Canadian Nat. Coll.). New synonymy

Two topotypic paratypes of *mixtecus* Bright were compared to my series that previously had been compared to the male holotype of *armatus* Blandford. This species occurs from southern Mexico to Panama.

Phloeotribus demessus Blandford

Phloeotribus demessus Blandford, 1897, Biol. Centr. Amer., Coleopt. 4(6):165 (Lectotype, female; Toxpan, a probable misspelling of Tuxpan, Veracruz, Mexico; British Mus. Nat. Hist.).

Phloeotribus tuberculatus Eggers, 1951, Ent. Blätt. 46:147 (Holotype, female; Turrialba, Cartago, Costa Rica; U.S. Nat. Mus.). New synonymy

The second specimen, a female, in the Blandford series of *demesus* has been labeled type and has been regarded as the type of this species, although it has never been so designated. I here designate that female syntype as the lectotype of *demessus*. This specimen was compared to my series and some of these were later compared to the female holotype of *tuberculatus* Eggers; all clearly represent the same species.

Phloeotribus pilula Erichson

Hylesinus pilula Erichson, 1847, Archiv Naturgesch. 13(1):138 (Lectotype, male; Peru; Zool. Mus. Berlin, present designation)

Phloeotribus obliquus Chapuis, 1869, Synopsis des Scolytides, p. 45 (Syntypes; Mexique, Nouvelle-Grenada; Brussels Mus.). New synonymy

Phloeotribus manni Blackman, 1943, Proc. U.S. Nat. Mus. 94:385 (Holotype, female; Rio Madeira, Brazil; U.S. Nat. Mus.). New synonymy

Of three specimens presumed to be syntypes of *pilula* (Erichson) now in the Zoological Museum in Berlin, only the first specimen, a male, is of the species usually designated by this name. The second and third specimens are females of a different species not presently known to me and probably were not part of the original series. In order to avoid possible confusion at a later date, I here designate the first specimen in the series as the lectotype of *pilula*. This same species was named *obliquus* by Chapuis. Under the name *obliquus* in the Brussels Museum were four specimens in 1969; the first syntype is of *transversus* Chapuis (apparently remounted on the wrong pin when the glue deteriorated) and did not fit the description; the second syntype did fit the description and it was identical with the third and fourth specimens labeled "ex-typis." In 1971, when I reexamined these specimens, the second syntype was missing from the pin. That specimen previously had been compared to my series from Peru and to the two Chapuis ex-typis specimens and are of the same species as the lectotype of *pilula*. The holotype of *manni* Blackman was also compared directly to my specimens from Peru and is also this species.

This species is abundant in *Brosmium* sp. from Chiapas, Mexico, to Peru and Brazil.

Phloeotribus setulosus Eichhoff

Phloeotribus setulosus Eichhoff, 1868, Berliner Ent. Zeitschr. 12:149 (Lectotype, male; Colombia; Brussels Mus., present designation).

Phloeotribus asperatus Blandford, 1897, Biol. Centr. Amer., Coleopt. 4(6):166 (Holotype, male; Panachel, Guatemala; British Mus. Nat. Hist.). New synonymy

Two syntypes, a male and a female, of *setulosus* Eichhoff are in the Brussels Museum. The male, labeled "Colombie," not Carolina, as reported by Eichhoff, is here designated as the lectotype of this species. It is identical to the male holotype of *asperatus* Blandford. Both types were compared directly to my material from Central and South America and they obviously represent the same species.

This is the most abundant and widely distributed Central and South American species of *Phloeotribus*; it occurs in a wide variety of host trees. It is easily misidentified, and numerous specimens in museums under this name are not of this species.

Pityoborus frontalis Wood

Pityoborus frontalis Wood, 1971, Brigham Young Univ. Sci. Bull. Biol. Ser. 15(3):49 (Holotype, female; 13 km S El Cameron, Oaxaca, Mexico; Wood Coll.).

Pityoborus severus Bright, 1972, Canadian Ent. 104:1676 (Holotype, female; 5 km or 3 miles N Suchixtepec, Oaxaca, Mexico; Canadian Nat. Coll.). New synonymy

Two paratypes of *severus* Bright from 8 miles S Miahuatlan, Oaxaca, Mexico, were compared to the holotype and allotype of *frontalis* Wood. They are identical in every respect.

Pityoborus secundus Blackman

Pityoborus secundus Blackman, 1928, Bull. New York St. Coll. For., Syracuse, Tech. Pub. 25:146 (Holotype, female; La Sal Mts., Utah; U.S. Nat. Mus.)

Pityoborus tertius Blackman, 1942, Proc. U.S. Nat. Mus. 92:202 (Holotype, female; Chalco, Distrito Federal, Mexico; U.S. Nat. Mus.). New synonymy

Pityoborus intonsus Wood, 1958, Great Basin Nat. 28:54 (Holotype, female; 23 km or 14 miles W Texmelucan, Puebla, Mexico; Snow Ent. Mus., Univ. Kansas). New synonymy

Pityoborus immitus Bright, 1972, Canadian Ent. 104:1674 (Holotype, female; 68 km W Durango, Durango, Mexico; Canadian Nat. Coll.). New synonymy

Pityoborus ramosus Bright, 1972, Canadian Ent. 104:1677 (Holotype, female; 5.6 km or 3.5 miles S Suchixtepec, Oaxaca, Mexico; Canadian Nat. Coll.). New synonymy

This species has been collected at 14 rather widely separated localities from Utah to Oaxaca. The average specimen in each series is slightly different from those in almost every other series. Several independent clinal variations between series are also apparent. However, the differences are so minute and inconsistent within most series that the only logical solution appears to be the grouping of all of this material into one species at least until considerably more material is available for study from many more localities. This

decision was based on 169 specimens including the holotypes and type series of *secundus* Blackman, *tertius* Blackman and *intonsus* Wood, and on female paratypes of *immitus* Bright and *ramosus* Bright. The last four names listed, therefore, are placed in synonymy under *secundus*.

Pycnarthrum hispidum (Ferrari)

- Hypoborus* (?) *hispidus* Ferrari, 1867, Die Forst- und Baunzuchtschädlichen Borkenkäfer, p. 19 (Syntypes?, Cuba; presumably in Vienna Mus.)
- Nemobius lambottei* Chapuis, 1869, Synopsis des Scolytides, p. 42 (Lectotype, female; Teapa, presumably Tabasco, Mexico; Brussels Mus., present designation). New synonymy
- Pycnarthrum gracile* Eichhoff, 1878, Mém. Soc. Roy. Sci. Liège (2)8:104 (Syntypes?, Cuba; some syntypes lost with Hamburg Mus., one apparent syntype in U.S. Nat. Mus.). New synonymy
- Pycnarthrum quadraticolle* Eichhoff, 1878,, Mém. Soc. Roy. Sci. Liège (2)8:106 (Lectotype, male; Mexico; U.S. Nat. Mus., present designation). New synonymy
- Pycnarthrum transversum* Blandford, 1897, Biol. Centr. Amer., Coleopt. 4(6): 177 (Lectotype, female; Mirandilla, Guatemala; British Mus. Nat. Hist., present designation). New synonymy
- Pycnarthrum reimoseri* Schedl, 1934, Ent. Blätt. 30:208 (Syntypes, females; Jimenez on Osa Penninsula, and Volcan Irazu, Costa Rica; Vienna Mus. and Schedl. Coll.). New synonymy
- Pycnarthrum reticulatus* Schedl, 1940, An. Esc. Nac. Cienc. Biol., Mexico, 1:335 (Syntypes; Tonala and Mapastec in Chiapas, Tuxtepec in Oaxaca, and Cardel in Veracruz, Mexico; Schedl and Dampf Collections). New synonymy

This is the only widely distributed, common *Pycnarthrum* species in Mexico, Central America, and southern Florida to Guadeloupe. It breeds in *Ficus* spp. and it is readily attracted to light. It is the only species in this genus known to occur north of Honduras and Guadeloupe Island.

Authentic specimens of *hispidus* (Ferrari) have not been examined although several specimens supposedly compared to the types by Eggers were examined; since no other species of this genus occurs in Cuba, the association appears certain. The three syntypes of *lambottei* (Chapuis) were examined and the first of these, a female from Teapa, is here designated as the lectotype of *Nemobius lambottei* Chapuis. A specimen in the U.S. National Museum, sent by Eichhoff, bears the labels "*Pycnarthrum gracile* Eich., Type, Cuba, 50," and is presumed to be a syntype. That specimen is here designated as the lectotype of *Pycnarthrum gracile* Eichhoff, since the remainder of the Eichhoff series was destroyed with the Hamburg Museum. From syntypes of *quadraticolle* Eichhoff in the U.S. National Museum a male was selected, labeled, and is here designated as the lectotype of this species. Blandford based *transversum* on four female syntypes; the left specimen (with the elytra completely closed) on the first pin in this series is here designated as the lectotype of *transversum* Blandford. One female cotype at the U.S. National Museum and several other specimens identified by Schedl as *reimoseri* Schedl were examined; several specimens identified by Schedl as *reticulatus* Schedl were also studied. All of the above

material and several hundred other specimens from throughout its distribution were examined and found to represent one species.

Pseudopityophthorus declivis Wood

Pseudopityophthorus declivis Wood, 1971, Brigham Young Univ., Sci. Bull. Biol. Ser. 15(3):50 (Holotype, female; Laguna Santa Maria, Nayarit, Mexico; Wood Coll.)

Pseudopityophthorus truncatus Bright, 1972, Canadian Ent. 104:1673 (Holotype, male; 184 km S Oaxaca, Oaxaca, Mexico; Canadian Nat. Coll.). New synonymy

Pseudopityophthorus curtus Bright, 1972, Canadian Ent. 104:1674 (Holotype, female?; km or 8 miles N Ocosingo, Chiapas, Mexico; Canadian Nat. Coll.). New synonymy

The holotypes of *declivis* Wood and *curtus* Bright and two topotypic paratypes of *truncatus* Bright were compared directly to one another. The specimen of *declivis* is intermediate in size between the slightly smaller *curtus* and the slightly larger *truncatus*. The declivital punctures in *truncatus* are distinctly smaller, particularly toward the apex and the interstitial bristles are very slightly longer and finer. The posterior areas of the pronotum of *curtus* are more brightly shining, but the prothoracic joint has been broken and the anterior unit remounted with the posterior areas; the possibility exists that the anterior unit came from another slightly larger specimen. In view of the paucity of material from widely separated areas I presently consider *truncatus* and *curtus* to be synonyms of *declivis*. It is possible that *curtus* might eventually be restored to subspecific rank when sufficient material is available from more localities.

Pseudopityophthorus hondurensis Wood

Pseudopityophthorus hondurensis Wood, 1967, Great Basin Nat. 27:42 (Holotype, male; Buenos Aires, Cortes, Honduras; Wood Coll.)

Pseudopityophthorus montanus Bright, 1972, Canadian Ent. 104:1667 (Holotype, male; Mt. Tzontehuitz, Chiapas, Mexico; Canadian Nat. Coll.). New synonymy

Two topotypic paratypes of *montanus* Bright were compared to the type series of *hondurensis* Wood. Only one species is represented by this material.

Pseudopityophthorus micans Wood

Pseudopityophthorus micans Wood, 1967, Great Basin Nat. 27:44 (Holotype, male, 96 km or 60 miles W Durango, Durango, Mexico; Wood Coll.)

Pseudopityophthorus squamosus Bright, 1972, Canadian Ent. 104:1670 (Holotype, female; 14 km or 9 miles W La Ciudad, Durango, Mexico; Canadian Nat. Coll.). New synonymy

A topotypic female paratype of *squamosus* Bright was compared to the type series of *micans* Wood. Although most paratypes of *micans* have the elytra entirely glabrous, some have declivital scales exactly as seen in *squamosus*. Bright's name *squamosus* must be placed in synonymy under *micans*.

Pseudopityophthorus opacicollis Blackman

- Pseudopityophthorus opacicollis* Blackman, 1931, J. Washington Acad. Sci. 21: 235 (Holotype, male; Santa Catalina Mts., Arizona; U.S. Nat. Mus.).
- Pseudopityophthorus aesculinus* Bright, 1972, Canadian Ent. 104:1672 (Holotype, female; 112 km or 70 miles N Oaxaca, Oaxaca, Mexico; Canadian Nat. Coll.).
New synonymy

Two topotypic paratypes of *aesculinus* Bright were compared to two paratypes and 38 other specimens of *opacicollis* Blackman taken from Arizona to Tlaxcala, Mexico. This species is somewhat more variable than was indicated in Blackman's description, but the paratypes of *aesculinus* are average specimens and Bright's species must be placed in synonymy under *opacicollis*.

Pseudopityophthorus pruinosus (Eichhoff)

- Pityophthorus pruinosus* Eichhoff, 1878, Mém. Soc. Roy. Sci. Liège (2)8:187 (Syn-types: Carolina; most were lost with the Hamburg Mus., one is in the U.S. Nat. Mus.)
- Pseudopityophthorus pulvereus* Blackman, 1931, J. Washington Acad. Sci. 21:232 (Holotype, male; Chiricahua Reserve, Arizona; U.S. Nat. Mus.). New synonymy
- Pseudopityophthorus tropicalis* Wood, 1967, Great Basin Nat. 27:43 (Holotype, male; Zamorano, Morazan, Honduras; Wood Coll.). New synonymy
- Pseudopityophthorus convexus* Bright, 1972, Canadian Ent. 104:1672 (Holotype, male; 184 km or 115 miles S Oaxaca, Oaxaca, Mexico; Canadian Nat. Coll.).
New synonymy

The only known syntype of *pruinus* (Eichhoff), the type series of *pulvereus* Blackman and of *tropicalis* Wood, one topotypic paratype of *convexus* Bright, and 83 other specimens of this species from Arizona and Mexico were examined in a review of all species of this genus. In attempting to make a key to identify the described species it was noted that some of the minute characters on which these species were based were not consistent within or between series. It became necessary to reevaluate my concept of this species and broaden it to include *pulvereus*, *tropicalis*, and *convexus* as synonyms of *pruinus*.

Pseudopityophthorus singularis Wood

- Pseudopityophthorus singularis* Wood, 1971, Brigham Young Univ. Sci. Bull. Biol. Ser. 15(3):50 (Holotype, male; 1 km W Las Vigas, Veracruz, Mexico; Wood Coll.)
- Pseudopityophthorus acuminatus* Bright, 1972, Canadian Ent. 104:1671 (Holotype, male; 13 km or 8 miles NE San Cristobal de las Casas, Chiapas, Mexico; Canadian Nat. Coll.). New synonymy

Two topotypic paratypes of *acuminatus* Bright were compared to the type series of *singularis*. Only one species is represented by this material.

Pseudopityophthorus tenuis Wood

- Pseudopityophthorus tenuis* Wood, 1959, Great Basin Nat. 19:1 (Holotype, male; 18 km or 11 miles NE Jacala, Hidalgo, Mexico; Snow Ent. Mus., Univ. Kansas)

Pseudopityophthorus hirsutus Bright, 1972, Canadian Ent. 104:1668 (Holotype, male; 8 km or 5 miles SE Teopisca, Chiapas, Mexico; Canadian Nat. Coll.).
New synonymy

A topotypic paratype of *hirsutus* Bright was compared to the type series and to 22 other representatives of this species from Veracruz. The sculpture of the frons is slightly variable throughout the range of the species, but the specimen of *hirsutus* fits well within the limits of that variation.

Stenocleptus sulcatus (Bruck)

Pseudothysanoes sulcatus Bruck, 1936, Bull. S. California Acad. Sci. 35:33 (Holotype, male; Mt. Wilson, Los Angeles Co., California; Ohio State Univ. Coll.).

Stenocleptus ceanothi Blackman, 1943, Proc. U.S. Nat. Mus. 93:358 (Holotype, female; Yosemite Nat. Pk., California; U.S. Nat. Mus.). New synonymy

Stenocleptus rhois Blackman, 1943, Proc. U.S. Nat. Mus. 93:357 (Holotype, female; Orange Co., California; U.S. Nat. Mus.). New synonymy

This rare species is known from five short series in which most of the specimens are in poor condition caused by the adherence of plant resins and frass to the beetles. Minute differences may be seen between every series, although their basic features are identical. Until considerably more material is available I place *ceanothi* Blackman and *rhois* Blackman in synonymy under *sulcatus* (Bruck). The entire type series of both of Blackman's species, two paratypes of *sulcatus*, and four other specimens were used as the basis for this synonymy.

Thysanoes texanus Blackman

Thysanoes texanus Blackman, 1943, Proc. U.S. Nat. Mus. 93:353 (Holotype, female; Brownsville, Texas; U.S. Nat. Mus.).

Thysanoes vachelliae Blackman, 1943, Proc. U.S. Nat. Mus. 93:353 (Holotype, female; Brownsville, Texas; U.S. Nat. Mus.). New synonymy

Thysanoes ratamae Blackman, 1943, Proc. U.S. Nat. Mus. 93:354 (Holotype, female; Mexico; U.S. Nat. Mus.). New synonymy

Following a review of all described species of *Thysanoes*, including 160 specimens of this species and a direct comparison of their holotypes, it was concluded that *texanus* Blackman, *vachelliae* Blackman, and *ratamae* Blackman all represent one common species that occurs from southern Texas to Veracruz and Colima. The unique type of *ratamae* is in very poor condition, but frontal characters insure the correctness of my identification.

Trypopholeus striatulus (Mannerheim)

Cryphalus striatulus Mannerheim, 1853, Bull. Soc. Imp. Nat. Moscou 26:235 (Holotype, sex?: Lake Skeljamna, Kenai Peninsula, Alaska; presumably lost)

Trypophloeus nitidus Swaine, 1912, Canadian Ent. 44:349 (Lectotype, sex?: Weymouth, Nova Scotia; Canadian Nat. Coll., designated by Bright, 1967, Canadian Ent. 99:679). New synonymy

The Mannerheim collection contains no specimens under the name *striatulus* (Mannerheim) nor are there American specimens of this or a related genus among his undetermined American material. Mannerheim compared this species to the familiar European *Trypophoeus granulatus* (Ratzeburg). Considering Mannerheim's knowledge of the European fauna and the fact that the only species of American Cryphalini occurring north of British Columbia is *nitidus* Swaine, a species very similar to *granulatus*, I place *nitidus* in synonymy under *striatulus*. My specimen from Cantwell, Alaska, about 200 miles north of the type locality, is entirely typical of the species and confirms the existence of this species that far north.

Xyleborus capucinus Eichhoff

Xyleborus capucinus Eichhoff, 1869, Berliner Ent. Zeitschr. 12:281 (Holotype, female; Guadeloupe Island; Brussels Mus.)

Xyleborus rufithorax Eichhoff, 1869, Berliner Ent. Zeitschr. 12:281 (Holotype female; Brazil; Brussels Mus.). New synonymy

The female holotypes of *capucinus* Eichhoff and *rufithorax* Eichhoff were examined and compared directly to my specimens. The holotype of *capucinus* is callow, partly crushed, and in poor condition, and the prothorax of *rufithorax* is not fully colored, but there is no question whatever as to their synonymy. The species is now known from Nayarit and Veracruz, Mexico, to Colombia and Brazil.

Xyleborus pubescens Zimmermann

Xyleborus pini Say (?): Eichhoff, 1868, Berliner Ent. Zeitschr. 11:401 (Erroneous identification)

Xyleborus pubescens Zimmermann, 1868, Trans. Amer. Ent. Soc. 2:145 (Lectotype, female; Southern States; Mus. Comp. Zool., present designation).

Xyleborus propinguus Eichhoff, 1869, Berliner Ent. Zeitschr. 12:281 (Lectotype, female; Amerique boreali; Brussels Mus., present designation). New synonymy

Various authors have treated as valid a species designated as *Xyleborus pini* Eichhoff. However, when the literature is searched the only Eichhoff reference to such a name is the erroneous identification and description of Say's species and the citation of the same species in synonymy. Neither reference validated this name; consequently, the oldest available name for this taxon is *pubescens* Zimmermann. The first of two female syntypes now in the LeConte collection is here designated as the lectotype of *pubescens* Zimmermann. The female syntype in the Brussels Museum is here designated as the lectotype of *propinguus* Eichhoff; it was compared directly to my homotypes of *pubescens* and is identical in all respects.

Xylosandrus curtulus Eichhoff

Xyleborus curtulus Eichhoff, 1869, Berliner Ent. Zeitschr. 12:281 (Holotype, female; Brazil; Institut Royal des Sciences Naturelles de Belgique, Brussels)

Xyleborus biseriatus Schedl, 1963, Reichenbachia 1:226 (Holotype, female; Nova Teutonia, Santa Catarina, Brazil; Schedl Coll.). New synonymy

The holotype of *Xyleborus curtulus* Eichhoff was compared directly to specimens which previously had been compared directly to the holotype of *biseriatus* Schedl. Only one species is represented.

Because a series from Caicedonia, Valle de Cauca, Colombia, indicated intergradation between this species and *zimmermanni* (Hopkins), they were treated as synonyms (Wood, 1966, Great Basin Nat. 26:33). Since then, many additional series of both species have been taken in a broad zone of sympatry without additional indications of intergradation. Both species are now considered valid, with *curtulus* occurring from Nayarit and Veracruz, Mexico, to Brazil, and *zimmermanni* from Florida and Guatemala to Venezuela.